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Office of Environmental Management – Grand Junction

MOAB UTAH

UMTRA Project

May 2006 Water Sampling Validation Data Package for Routine Ground Water and Surface Water Sampling

Moab, Utah

August 2006

U.S. Department of Energy

Office of Environmental Management

Work Performed Under DOE Contract No. DE–AC01–02GJ79491
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Approved for public release; distribution is unlimited.

May 2006 Water Sampling

Validation Data Package for Routine Ground Water and Surface Water Sampling Moab, Utah

August 2006

Moab, Utah

May 1–4, 2006

Data Package Contents

This data package includes the following information:

Sampling Event Summary

Site: Moab, Utah

Sampling Period: May 1–4, 2006

The purpose of this sampling event was to collect water samples and data at selected ground water monitor wells and from the Colorado River. These data will be used to evaluate overall water quality. This sampling represents the first routine sampling event for 2006. Sampling was conducted in accordance with the *Surface Water and Ground Water Monitoring Plan for the Moab, Utah, Site* (DOE 2004). Samples were collected from 18 ground water and 15 surface water locations.

SUMMARY CRITERIA

1. **Did concentrations in water from any domestic wells sampled exceed a ground water standard, primary drinking water standard, or health advisory?**

   Domestic wells were not sampled during this event.

2. **Were standards exceeded at any point-of-compliance wells?**

   Point-of-compliance wells have not been established at the Moab site.

3. **As a result of this sampling round, is there any indication of unexpected contaminated ground water movement?**

   There is no indication of unexpected contaminated ground water movement. Ground water contamination in the shallow alluvial aquifer beneath the tailings pile and former millsite area flows southeast toward the Colorado River, as described in the Site Observation Work Plan (DOE 2003). Relatively low contaminant concentrations (as compared to non-pumping periods) are evident in wells 0403 and 0407, which were sampled on May 4, 2006, and are located between the extraction well field and the Colorado River. The contaminant concentration reduction is probably due to the pumping of the Configuration 1 and 3 extraction wells and the injection of diverted Colorado River water into Configuration 2. Instead of contaminated ground water flowing toward the Colorado River, the constant extraction well pumping has reversed the ground water flow direction, and injection into Configuration 2 wells is diluting ground water contaminants with infiltration of Colorado River water. Wells that exceed water quality standards are listed in Table 1.

Table 1. Locations Where Standards Were Exceeded in May 2006.

Analyte	Standard (mg/L)*	Locations Exceeding Standards
Uranium (total)	0.044	0401 (4.4), 0402 (0.45), 0403 (0.34), 0404 (3.1), 0405 (2.1), 0406 (1.3), 0407 (0.21), 0408 (4.0), 0437 (4.0), 0438 (2.1), 0439 (1.0), 0492 (3.6), ATP-2-S (0.31), TP-02 (9.7)

*mg/L = Milligrams per liter

4. **Is there statistical evidence that contaminants related to the UMTRA Project were detected in a surface body of water in greater concentrations than upstream ambient water quality?**

Since monitoring of the site began, ammonia, chloride, sulfate, total dissolved solids (TDS), and uranium have periodically occurred at elevated concentrations in the Colorado River. These elevated concentrations were found primarily adjacent to and just downstream from the mill tailings pile. However, the results from this sampling event indicate a decrease in contaminant concentrations in the Colorado River. Because the Colorado River was at a high stage at the time of sampling (>10,000 cubic feet per second), these low concentrations are probably primarily due to dilution caused by high river flows.

John R Ford

John R. Ford
Ground Water Lead

8-31-2006

Date

Sample Location Maps

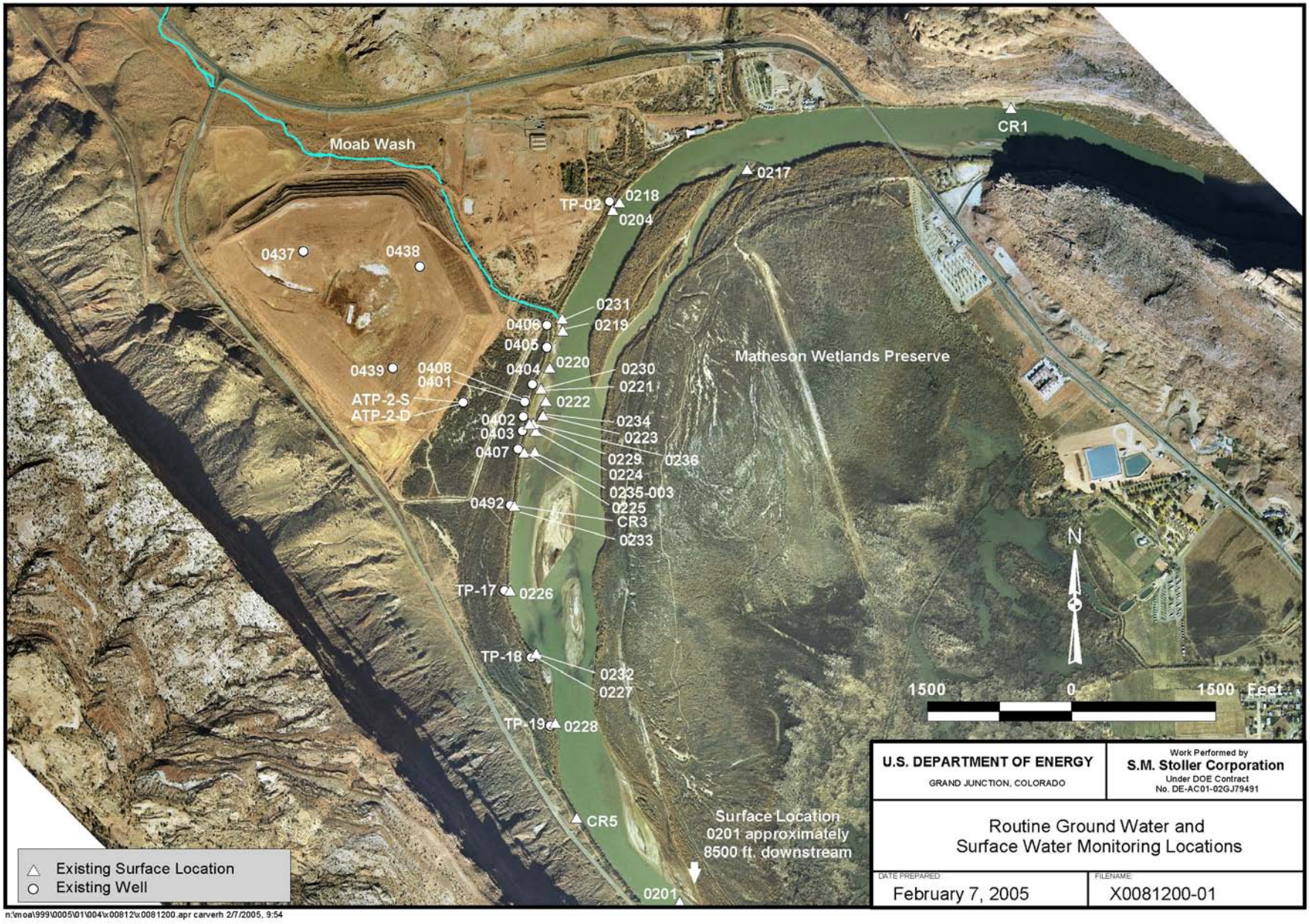


Figure 1. Routine Ground Water and Surface Water Sampling Locations (may include locations not sampled)

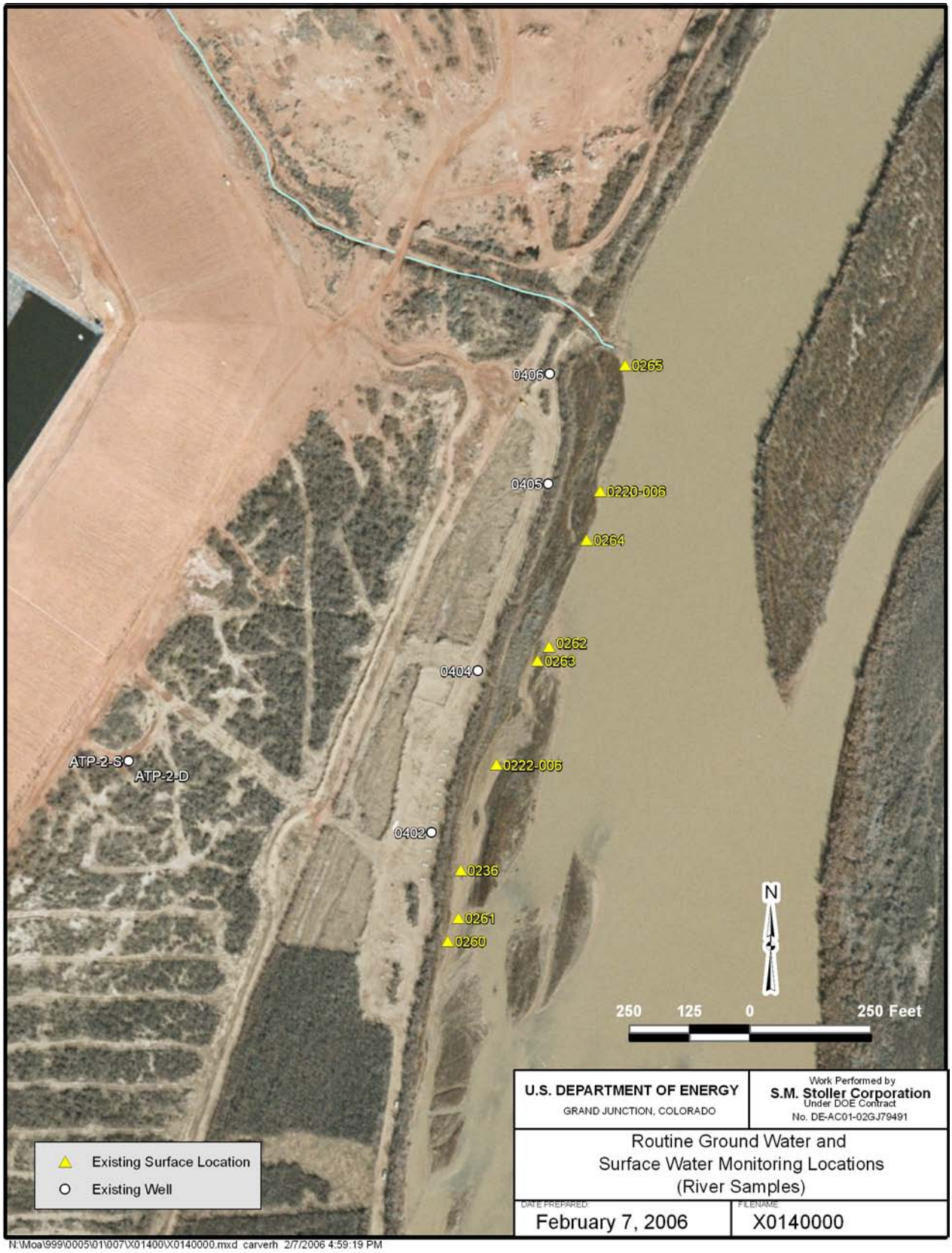


Figure 2. Routine Ground Water and Surface Water Monitoring Locations

Data Assessment Summary

Water Sampling Field Activities Verification Checklist

Project	Moab, Utah	**Date(s) of Water Sampling**	May 1–4, 2006
Date(s) of Verification	August 8, 2006	**Name of Verifier**	Jeff Price

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?	Yes	
List other documents, SOPs, instructions.	NA	
2. Were the sampling locations specified in the planning documents sampled?	No	See Trip Report for explanation.
3. Was a pre-trip calibration conducted as specified in the above-named documents?	Yes	
4. Was an operational check of the field equipment conducted twice daily?	Yes	
Did the operational checks meet criteria?	Yes	
5. Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified?	Yes	
6. Was the Category of the well documented?	Yes	
7. Were the following conditions met when purging a Category I well:		
Was one pump/tubing volume purged prior to sampling?	Yes	
Did the water level stabilize prior to sampling?	Yes	
Did pH, specific conductance, and turbidity measurements stabilize prior to sampling?	Yes	
Was the flow rate less than 500 milliliters per minute (mL/min)?	Yes	
If a portable pump was used, was there a 4-hour delay between pump installation and sampling?	NA	

Water Sampling Field Activities Verification Checklist (continued)

	Response (Yes, No, NA)	Comments
8. Were the following conditions met when purging a Category II well:		
Was the flow rate less than 500 mL/min?	NA	
Was one pump/tubing volume removed prior to sampling?	NA	
9. Were duplicates taken at a frequency of one per 20 samples?	Yes	
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	Yes	
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
12. Were QC samples assigned a fictitious site identification number?	Yes	
Was the true identity of the samples recorded on the Quality Assurance Sample Log?	Yes	
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	Yes	
15. Were the number and types of samples collected as specified?	Yes	
16. Were chain of custody records completed and was sample custody maintained?	Yes	
17. Are field data sheets signed and dated by both team members?	Yes	
18. Was all other pertinent information documented on the field data sheets?	Yes	
19. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
20. Were water levels measured at the locations specified in the planning documents?	Yes	

Laboratory Performance Assessment

General Information

Requisition No. (RIN):	06040361
Sample Event:	May 1–4, 2006
Site(s):	Moab, Utah
Laboratory:	Paragon Analytics
Work Order No.:	0605074
Analysis:	Metals and Inorganics
Validator:	Steve Donivan
Review Date:	June 12, 2006

This validation was performed according to the *Environmental Procedures Catalog* (STO 6), "Standard Practice for Validation of Laboratory Data", GT-9(P). All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 2.

Table 2. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Ammonia as N, NH_3-N	WCH-A-005	MCAWW 350.1	MCAWW 350.1
Bromide, Br	MIS-A-038	SW-846 9056	SW-846 9056
Chloride, Cl	MIS-A-039	SW-846 9056	SW-846 9056
Sulfate, SO_4	MIS-A-044	SW-846 9056	SW-846 9056
Total Dissolved Solids, TDS	WCH-A-033	MCAWW 160.1	MCAWW 160.1
Uranium, U	GJO-01	SW-846 3005A	SW-846 6020A

Data Qualifier Summary

Analytical results were qualified as listed in Table 3. Refer to the attached validation worksheets and the sections below for an explanation of the data qualifiers applied.

Table 3. Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
0605074-29	TP-19	U	U	Less than 5 times the calibration blank
0605074-30	0404	TDS	J	Missed holding time
0605074-31	0221-007	TDS	J	Missed holding time
0605074-32	0405	TDS	J	Missed holding time
0605074-33	0220-007	TDS	J	Missed holding time
0605074-34	0406	TDS	J	Missed holding time
0605074-35	0219-007	TDS	J	Missed holding time
0605074-36	2325 (Equip. Blank)	U	U	Less than 5 times the calibration blank

Sample Shipping/Receiving

Paragon Analytics in Fort Collins, Colorado, received 36 samples between May 5, 2006, and May 11, 2006, accompanied by Chain of Custody (COC) forms. The COC forms were checked to confirm that all of the samples were listed on the forms with sample collection dates and times, and that signatures and dates were present, indicating sample relinquishment and receipt. The sample submittal documents, including the COC form and the sample tickets, had no errors or omissions.

Preservation and Holding Times

The sample shipment was received cool and intact, with temperatures within the coolers of 1.2, 0.2, and 2.6 °C, which comply with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses. All samples were analyzed within the applicable holding times with the following exception. The TDS samples collected on May 4, 2006, were analyzed outside of the holding time because of delayed shipment. These data are qualified with a "J" flag as estimated values.

Laboratory Instrument Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for all analytes. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear curve. Compliance requirements for continuing calibration checks are established to ensure that the instrument continues to be capable of producing acceptable qualitative and quantitative data. All laboratory instrument calibrations were performed correctly in accordance with the cited methods.

Method SW-846 6020A

Calibration for uranium was performed on June 1, 2006. The initial calibrations were performed using six calibration standards, resulting in calibration curves with correlation coefficient (r^2) values greater than 0.995. The absolute values of the curve intercepts were less than 3 times the Method Detection Limit (MDL). Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification (CCV) checks were made at the required frequency, resulting in seven CCVs. All calibration check results met the acceptance criteria. A reporting limit verification check was made at the required frequency to verify the linearity of the calibration curve near the practical quantitation limit. The check was within the acceptance criteria range. Mass calibration and resolution verifications were performed at the beginning of each analytical run in accordance with the analytical procedure. Internal standard recoveries were stable and within acceptable ranges.

Method SW-846 9056

The initial calibrations for bromide, chloride, and sulfate were performed using five calibration standards each on April 25, 2006. The calibration curve r^2 values were greater than 0.995, and intercepts were less than 3 times the MDL. Initial calibration and calibration check standards were prepared from independent sources. Initial and continuing calibration checks were made at the required frequency, resulting in 23 CCVs. The calibration checks met the acceptance criteria.

Method MCAWW 350.1

The initial calibrations for ammonia as N were performed using six calibration standards on May 25, 2006, resulting in calibration curves with r^2 values greater than 0.995, and intercepts were less than 3 times the MDL. Initial and continuing calibration checks were made at the required frequency, resulting in eight CCVs. All calibration check results were within the acceptance criteria.

Method MCAWW 160.1

There is no initial or continuing calibration requirement associated with the determination of Total Dissolved Solids (TDS).

Method and Calibration Blanks

The uranium initial and continuing calibration blanks were below the practical quantitation limits but greater than the MDL. The uranium result for samples 0605074-29 and 0605074-36 were less than 5 times the concentration of the associated continuing calibration blank and are qualified as "U". The bromide, chloride, sulfate, ammonia as N, and TDS method blanks, and initial and continuing calibration blanks were below the MDLs.

Inductively Coupled Plasma Interference Check Sample Analysis

Inductively coupled plasma interference check samples were analyzed at the required frequency to verify the instrumental interelement and background correction factors. All check sample results met the acceptance criteria.

Matrix Spike Analysis

Matrix spike and matrix spike duplicate (MS/MSD) pairs were analyzed for uranium, bromide, and ammonia as N as a measure of method performance in the sample matrix. The spike recoveries met the recovery and precision criteria for all analytes.

Laboratory Replicate Analysis

The RPD values for the laboratory replicate sample and MSD sample results for all analytes were less than 20 percent, indicating acceptable laboratory precision.

Laboratory Control Sample

Laboratory control samples were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. The results were acceptable for all analytes.

Metals Serial Dilution

Serial dilutions were performed during the uranium analysis to monitor physical or chemical interferences that may exist in the sample matrix. The serial dilution data were not evaluated because the concentration of the undiluted samples was less than 100 times the practical quantitation limit.

Detection Limits/Dilutions

Samples were diluted in a consistent and acceptable manner when required. The samples were diluted prior to analysis of uranium to reduce interferences. The required detection limits were achieved for all analytes.

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. There were no manual integrations performed and all peak integrations were satisfactory.

Electronic Data Deliverable File

The electronic data deliverable (EDD) file arrived on June 7, 2006. The Sample Management System EDD validation module was used to verify that the EDD file was complete and in compliance with requirements. The module compares the contents of the file to the requested analyses to ensure all and only the requested data are delivered. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

Field Analyses/Activities

Field Activities

All monitor well results were qualified with an “F” flag in the database, indicating the wells were purged and sampled using the low-flow sampling method. An equipment blank was collected and analyzed for the same constituents as the Moab environmental samples. Concentrations measured in the equipment blank were below their respective contract required detection limit; therefore, equipment blank results are considered acceptable. Duplicate samples were collected from locations 0226–007 and 0439. There are no established regulatory criteria for the evaluation of field duplicate samples; therefore, U.S. Environmental Protection Agency (EPA) guidance for laboratory duplicates (which is conservative for field duplicates) was used to assess the precision of the field duplicates. Duplicate results met the laboratory duplicate criteria of +/-20 RPD and are considered acceptable.

Certification

Results were reported in correct units for all analytes requested. Appropriate contract-required laboratory qualifiers and target analyte lists were used. The required detection limits were met when possible or an explanation of why they were not met was given in the laboratory case narrative. All analytical quality-control criteria were met, except as qualified on the Ground Water Quality Data by Parameter, Surface Water Quality by Parameter, or equipment/trip blank database printouts. The meaning of data qualifiers is defined on the database printouts or defined in the EPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media Multi-Concentration, Document Number ILMO2.0, 1991. All data in this package are considered validated and may be treated as final results.

Laboratory Validation Lead: Steve Donivan — Steve Donivan — 8-31-2006 — Date

Field Activities Validation Lead: J. E. Price — Jeff Price — 8/31/06 — Date

Attachment 1

Data Presentation

Minimums and Maximums Report

Minimums and Maximums Report

The Minimums and Maximums Report is generated by a data validation application (DataVal) used to query the SEEPro database. The DataVal compares the new data set with historical data and lists all new data that fall outside the historical data range. Values listed in the report are further screened using the following criteria. Results are not considered anomalous if: (1) identified low concentrations are the result of low detection limits; (2) the concentration detected is within 50 percent of historical minimum or maximum values; or (3) there were fewer than five historical samples for comparison.

All-time high values were measured at location 0405 for the analytes chloride, TDS, and uranium.

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters
LAB CODE: PAR, PARAGON (Fort Collins, CO)
LAB REQUISITION(S): 06040361
HISTORY BEGIN DATE: comparing to all historical data
REPORT DATE: 08/08/06 09:23:37: AM

				CURRENT			HISTORICAL MAXIMUM			HISTORICAL MINIMUM			COUNT	
SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	RESULT	QUALIFIERS LAB	DATA	RESULT	QUALIFIERS LAB	DATA	RESULT	QUALIFIERS LAB	DATA	N	N BELOW DETECT
MOA01	0201	05/02/2006	Uranium	0.0018			0.0088			0.0022			10	0
MOA01	0401	05/04/2006	Chloride	2300		F	2135.9			60		F	18	0
MOA01	0401	05/04/2006	Sulfate	9400		F	8724.3			170		F	18	0
MOA01	0401	05/04/2006	Total Dissolved Solids	18000		F	14000		F	500		F	17	0
MOA01	0401	05/04/2006	Uranium	4.4		F	2.387			0.018		F	18	0
MOA01	0402	05/04/2006	Ammonia Total as N	8.9		F	690			9.9		F	22	0
MOA01	0405	05/04/2006	Ammonia Total as N	330		F	560			390		F	15	0
MOA01	0406	05/04/2006	Ammonia Total as N	310		F	510			320		F	7	0
MOA01	0406	05/04/2006	Chloride	620		F	1195.6			790		F	7	0
MOA01	0406	05/04/2006	Sulfate	5100		F	7616.9			5400		F	7	0
MOA01	0406	05/04/2006	Total Dissolved Solids	8700		FJ	12000		F	10000		F	6	0
MOA01	0407	05/04/2006	Ammonia Total as N	4.3		F	1360			6.7		F	29	0
MOA01	0408	05/04/2006	Uranium	4		F	3.1624			0.11		F	22	0
MOA01	0438	05/03/2006	Ammonia Total as N	14		F	87.7329		QJ	17		F	9	0
MOA01	0439	05/03/2006	Total Dissolved Solids	7600		F	63900		Q	7700		F	19	0
MOA01	0492	05/02/2006	Ammonia Total as N	200		F	95		F	4		F	6	0
MOA01	ATP-2-D	05/03/2006	Ammonia Total as N	320		F	670			360		F	11	0
MOA01	CR1	05/02/2006	Uranium	0.0018			0.008			0.0019			20	0
MOA01	CR5	05/02/2006	Uranium	0.002			0.0115			0.0022			19	0
MOA01	TP-18	05/02/2006	Ammonia Total as N	2.5		F	8.4			2.6		F	12	0

SAMPLING DATA VALIDATION MINIMUMS AND MAXIMUMS REPORT -- No Field Parameters
LAB CODE: PAR, PARAGON (Fort Collins, CO)
LAB REQUISITION(S): 06040361
HISTORY BEGIN DATE: comparing to all historical data
REPORT DATE: 08/08/06 09:23:38: AM

				CURRENT			HISTORICAL MAXIMUM			HISTORICAL MINIMUM			COUNT	
SITE CODE	LOCATION CODE	SAMPLE DATE	ANALYTE	RESULT	QUALIFIERS LAB	DATA	RESULT	QUALIFIERS LAB	DATA	RESULT	QUALIFIERS LAB	DATA	N	N BELOW DETECT
MOA01	TP-18	05/02/2006	Chloride	41000		F	63500		F	47500			12	0

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

*	Replicate analysis not within control limits.
+	Correlation coefficient for MSA < 0.995.
A	TIC is a suspected aldol-condensation product.
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
Z	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
H	Holding time expired, value suspect.
I	Increased detection limit due to required dilution.
C	Pesticide result confirmed by GC-MS.
M	GFAA duplicate injection precision not met.
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
S	Result determined by method of standard addition (MSA).
U	Analytical result below detection limit.
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
D	Analyte determined in diluted sample.
P	> 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
X	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Y	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
>	Result above upper detection limit.
J	Estimated

DATA QUALIFIERS:

J	Estimated value.	F	Low flow sampling method used.	G	Possible grout contamination, pH > 9.
L	Less than 3 bore volumes purged prior to sampling.	R	Unusable result.	X	Location is undefined.
U	Parameter analyzed for but was not detected.	Q	Qualitative result due to sampling technique		

Anomalous Data Review Checksheet

Anomalous Data Review Checksheet

Site: Moab Processing Site **Sampling Date:** May 1–4, 2006

Reviewer: Jeff Price (Name (print)) J.E. Price (Signature) 8/31/06 (Date)

Site Lead: John Ford (Name (print)) John Ford (Signature) 8-31-2006 (Date)

Date of Review: August 8, 2006

Loc. No.	Analyte	Type of Anomaly	Disposition
0401	Uranium	High	

Water Quality Data

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	120			#	-	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	97			#	-	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	108			#	-	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	104			#	-	-
	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	120			#	-	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	93			#	-	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	94			#	-	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	97			#	-	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	111			#	-	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	128			#	-	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	120			#	-	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	109			#	-	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	902		F	#	-	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	902		F	#	-	-
	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	360		F	#	-	-
	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	411		F	#	-	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	284		F	#	-	-
	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	875		F	#	-	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	721		F	#	-	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	609		F	#	-	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	334		F	#	-	-
	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	863		F	#	-	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	863		F	#	-	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	598		F	#	-	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	788		F	#	-	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	742		F	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Alkalinity, Total (As CaCO3	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	881		F	#	-	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	116		F	#	-	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	248		F	#	-	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	102			#	-	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	113			#	-	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	107			#	-	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	507		F	#	-	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	204		F	#	-	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	245		F	#	-	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	152		F	#	-	-
Ammonia Total as N	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	0.1	U		#	0.1	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	0.1	U		#	0.1	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	0.1	U		#	0.1	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	0.1	U		#	0.1	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	0.1	U		#	0.1	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0226-007	SL, RIV	05/02/2006	0002	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.1	U		#	0.1	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	0.1	U		#	0.1	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	240		F	#	20	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	210		F	#	20	-
	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	9.9		F	#	0.5	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Ammonia Total as N	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	8.9		F	#	0.2	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	76		F	#	20	-
	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	310		F	#	20	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	330		F	#	20	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	310		F	#	20	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	4.3		F	#	0.1	-
	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	410		F	#	20	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	400		F	#	20	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	0.21		F	#	0.1	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	14		F	#	0.5	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	8.8		F	#	0.2	-
	mg/L	0439	WL	05/03/2006	0002	0.00 - 0.00	9		F	#	0.2	-
	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	200		F	#	20	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	320		F	#	20	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	470		F	#	20	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	0.1	U		#	0.1	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	0.1	U		#	0.1	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	0.1	U		#	0.1	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	0.89		F	#	0.1	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	3.2		F	#	0.1	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	2.5		F	#	0.1	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	3.5		F	#	0.1	-
Bromide	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.2	U		#	0.2	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	0.2	U		#	0.2	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	0.2	U		#	0.2	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	0.2	U		#	0.2	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Bromide	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	0.2	U		#	0.2	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	0.2	U		#	0.2	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	0.2	U		#	0.2	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	0.2	U		#	0.2	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.2	U		#	0.2	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.2	U		#	0.2	-
	mg/L	0226-007	SL, RIV	05/02/2006	0002	1.00 - 1.00	0.2	U		#	0.2	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.2	U		#	0.2	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	0.2	U		#	0.2	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	4	U	F	#	4	-
	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	1	U	F	#	1	-
	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	1	U	F	#	1	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	1	U	F	#	1	-
	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	0.4	U	F	#	0.4	-
	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	4	U	F	#	4	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	2	U	F	#	2	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	2	U	F	#	2	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	2	U	F	#	2	-
	mg/L	0439	WL	05/03/2006	0002	0.00 - 0.00	2	U	F	#	2	-
	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	20	U	F	#	20	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Bromide	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	4	U	F	#	4	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	0.2	U		#	0.2	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	0.2	U		#	0.2	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	0.2	U		#	0.2	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	1	U	F	#	1	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	20	U	F	#	20	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	20	U	F	#	20	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	40	U	F	#	40	-
Chloride	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	37			#	1	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	42			#	1	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	40			#	2	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	39			#	2	-
	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	38			#	2	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	40			#	1	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	41			#	1	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	40			#	1	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	38			#	1	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	37			#	1	-
	mg/L	0226-007	SL, RIV	05/02/2006	0002	1.00 - 1.00	38			#	1	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	39			#	1	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	38			#	1	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	2300		F	#	40	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	2300		F	#	40	-
	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	360		F	#	10	-
	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	360		F	#	10	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	350		F	#	10	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Chloride	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	2200		F	#	40	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	1400		F	#	40	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	620		F	#	40	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	130		F	#	10	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	2200		F	#	40	-
	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	2300		F	#	40	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	1300		F	#	20	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	1000		F	#	20	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	1300		F	#	20	-
	mg/L	0439	WL	05/03/2006	0002	0.00 - 0.00	1200		F	#	20	-
	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	4800		F	#	100	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	48000		F	#	2000	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	2400		F	#	40	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	38			#	1	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	39			#	1	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	37			#	1	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	540		F	#	10	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	53000		F	#	4000	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	41000		F	#	2000	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	60000		F	#	10000	-
Dissolved Oxygen	mg/L	0201	SL, RIV	05/02/2006	N001	1.00 - 1.00	9.43			#	-	-
	mg/L	0204-007	SL, RIV	05/03/2006	N001	0.66 - 0.66	9.01			#	-	-
	mg/L	0219-007	SL, RIV	05/04/2006	N001	0.75 - 0.75	9.10			#	-	-
	mg/L	0220-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	9.58			#	-	-
	mg/L	0221-007	SL, RIV	05/04/2006	N001	0.83 - 0.83	8.39			#	-	-
	mg/L	0222-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	8.98			#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	0223-007	SL, RIV	05/04/2006	N001	0.00 - 0.00	5.10			#	-	-
	mg/L	0224-007	SL, RIV	05/04/2006	N001	0.50 - 0.66	7.81			#	-	-
	mg/L	0225-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	11.70			#	-	-
	mg/L	0226-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	9.00			#	-	-
	mg/L	0227-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	9.77			#	-	-
	mg/L	0228-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	10.49			#	-	-
	mg/L	0401	WL	05/04/2006	N001	18.00 - 18.00	0.72		F	#	-	-
	mg/L	0401	WL	05/04/2006	N001	0.00 - 0.00	0.72		F	#	-	-
	mg/L	0402	WL	05/03/2006	N001	17.00 - 17.00	2.00		F	#	-	-
	mg/L	0402	WL	05/04/2006	N001	0.00 - 0.00	0.84		F	#	-	-
	mg/L	0403	WL	05/04/2006	N001	0.00 - 0.00	0.89		F	#	-	-
	mg/L	0404	WL	05/04/2006	N001	0.00 - 0.00	1.57		F	#	-	-
	mg/L	0405	WL	05/04/2006	N001	0.00 - 0.00	1.01		F	#	-	-
	mg/L	0406	WL	05/04/2006	N001	0.00 - 0.00	1.06		F	#	-	-
	mg/L	0407	WL	05/04/2006	N001	0.00 - 0.00	1.92		F	#	-	-
	mg/L	0408	WL	05/04/2006	N001	0.00 - 0.00	0.39		F	#	-	-
	mg/L	0408	WL	05/04/2006	N001	26.00 - 26.00	0.39		F	#	-	-
	mg/L	0437	WL	05/03/2006	N001	0.00 - 0.00	2.02		F	#	-	-
	mg/L	0438	WL	05/03/2006	N001	0.00 - 0.00	2.20		F	#	-	-
	mg/L	0439	WL	05/03/2006	N001	0.00 - 0.00	1.07		F	#	-	-
	mg/L	0492	WL	05/02/2006	N001	0.00 - 0.00	1.41		F	#	-	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	N001	0.00 - 0.00	0.33		F	#	-	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	N001	0.00 - 0.00	1.21		F	#	-	-
	mg/L	CR1	SL, RIV	05/02/2006	N001	0.66 - 0.66	8.92			#	-	-
	mg/L	CR3-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	8.71			#	-	-
	mg/L	CR5	SL, RIV	05/02/2006	N001	0.66 - 0.66	10.33			#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Dissolved Oxygen	mg/L	TP-02	WL	05/03/2006	N001	0.00 - 0.00	1.25		F	#	-	-
	mg/L	TP-17	WL	05/02/2006	N001	0.00 - 0.00	0.75		F	#	-	-
	mg/L	TP-18	WL	05/02/2006	N001	0.00 - 0.00	1.03		F	#	-	-
	mg/L	TP-19	WL	05/02/2006	N001	0.00 - 0.00	0.37		F	#	-	-
Oxidation Reduction Potent	mV	0201	SL, RIV	05/02/2006	N001	1.00 - 1.00	-3.4			#	-	-
	mV	0204-007	SL, RIV	05/03/2006	N001	0.66 - 0.66	-102.1			#	-	-
	mV	0219-007	SL, RIV	05/04/2006	N001	0.75 - 0.75	44.5			#	-	-
	mV	0220-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	46.0			#	-	-
	mV	0221-007	SL, RIV	05/04/2006	N001	0.83 - 0.83	57.3			#	-	-
	mV	0222-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	18.6			#	-	-
	mV	0223-007	SL, RIV	05/04/2006	N001	0.00 - 0.00	-17.4			#	-	-
	mV	0224-007	SL, RIV	05/04/2006	N001	0.50 - 0.66	2.9			#	-	-
	mV	0225-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	-45.1			#	-	-
	mV	0226-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	38.3			#	-	-
	mV	0227-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	-144.2			#	-	-
	mV	0228-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	-25.2			#	-	-
	mV	0401	WL	05/04/2006	N001	0.00 - 0.00	86.2		F	#	-	-
	mV	0401	WL	05/04/2006	N001	18.00 - 18.00	86.2		F	#	-	-
	mV	0402	WL	05/03/2006	N001	17.00 - 17.00	207		F	#	-	-
	mV	0402	WL	05/04/2006	N001	0.00 - 0.00	54.4		F	#	-	-
	mV	0403	WL	05/04/2006	N001	0.00 - 0.00	7.7		F	#	-	-
	mV	0404	WL	05/04/2006	N001	0.00 - 0.00	130		F	#	-	-
	mV	0405	WL	05/04/2006	N001	0.00 - 0.00	113		F	#	-	-
	mV	0406	WL	05/04/2006	N001	0.00 - 0.00	109.5		F	#	-	-
	mV	0407	WL	05/04/2006	N001	0.00 - 0.00	-45.3		F	#	-	-
	mV	0408	WL	05/04/2006	N001	0.00 - 0.00	97.9		F	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Oxidation Reduction Potent	mV	0408	WL	05/04/2006	N001	26.00 - 26.00	97.9		F	#	-	-
	mV	0437	WL	05/03/2006	N001	0.00 - 0.00	-45		F	#	-	-
	mV	0438	WL	05/03/2006	N001	0.00 - 0.00	-4.2		F	#	-	-
	mV	0439	WL	05/03/2006	N001	0.00 - 0.00	-1.4		F	#	-	-
	mV	0492	WL	05/02/2006	N001	0.00 - 0.00	10.0		F	#	-	-
	mV	ATP-2-D	WL, PZ	05/03/2006	N001	0.00 - 0.00	-230.5		F	#	-	-
	mV	ATP-2-S	WL, PZ	05/03/2006	N001	0.00 - 0.00	-175.6		F	#	-	-
	mV	CR1	SL, RIV	05/02/2006	N001	0.66 - 0.66	91.1			#	-	-
	mV	CR3-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	-81.6			#	-	-
	mV	CR5	SL, RIV	05/02/2006	N001	0.66 - 0.66	-16.2			#	-	-
	mV	TP-02	WL	05/03/2006	N001	0.00 - 0.00	-44.0		F	#	-	-
	mV	TP-17	WL	05/02/2006	N001	0.00 - 0.00	-104.6		F	#	-	-
	mV	TP-18	WL	05/02/2006	N001	0.00 - 0.00	-92.5		F	#	-	-
	mV	TP-19	WL	05/02/2006	N001	0.00 - 0.00	-226.1		F	#	-	-
pH	s.u.	0201	SL, RIV	05/02/2006	N001	1.00 - 1.00	8.15			#	-	-
	s.u.	0204-007	SL, RIV	05/03/2006	N001	0.66 - 0.66	8.15			#	-	-
	s.u.	0219-007	SL, RIV	05/04/2006	N001	0.75 - 0.75	8.14			#	-	-
	s.u.	0220-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	8.12			#	-	-
	s.u.	0221-007	SL, RIV	05/04/2006	N001	0.83 - 0.83	8.09			#	-	-
	s.u.	0222-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	8.18			#	-	-
	s.u.	0223-007	SL, RIV	05/04/2006	N001	0.00 - 0.00	8.18			#	-	-
	s.u.	0224-007	SL, RIV	05/04/2006	N001	0.50 - 0.66	8.18			#	-	-
	s.u.	0225-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	8.11			#	-	-
	s.u.	0226-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	8.11			#	-	-
	s.u.	0227-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	8.35			#	-	-
	s.u.	0228-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	8.14			#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
pH	s.u.	0401	WL	05/04/2006	N001	18.00 - 18.00	6.75		F	#	-	-
	s.u.	0401	WL	05/04/2006	N001	0.00 - 0.00	6.75		F	#	-	-
	s.u.	0402	WL	05/03/2006	N001	17.00 - 17.00	6.84		F	#	-	-
	s.u.	0402	WL	05/04/2006	N001	0.00 - 0.00	6.93		F	#	-	-
	s.u.	0403	WL	05/04/2006	N001	0.00 - 0.00	7.55		F	#	-	-
	s.u.	0404	WL	05/04/2006	N001	0.00 - 0.00	6.74		F	#	-	-
	s.u.	0405	WL	05/04/2006	N001	0.00 - 0.00	6.73		F	#	-	-
	s.u.	0406	WL	05/04/2006	N001	0.00 - 0.00	6.93		F	#	-	-
	s.u.	0407	WL	05/04/2006	N001	0.00 - 0.00	7.00		F	#	-	-
	s.u.	0408	WL	05/04/2006	N001	26.00 - 26.00	6.76		F	#	-	-
	s.u.	0408	WL	05/04/2006	N001	0.00 - 0.00	6.76		F	#	-	-
	s.u.	0437	WL	05/03/2006	N001	0.00 - 0.00	7.33		F	#	-	-
	s.u.	0438	WL	05/03/2006	N001	0.00 - 0.00	6.72		F	#	-	-
	s.u.	0439	WL	05/03/2006	N001	0.00 - 0.00	6.86		F	#	-	-
	s.u.	0492	WL	05/02/2006	N001	0.00 - 0.00	7.04		F	#	-	-
	s.u.	ATP-2-D	WL, PZ	05/03/2006	N001	0.00 - 0.00	7.54		F	#	-	-
	s.u.	ATP-2-S	WL, PZ	05/03/2006	N001	0.00 - 0.00	8.41		F	#	-	-
	s.u.	CR1	SL, RIV	05/02/2006	N001	0.66 - 0.66	8.10			#	-	-
	s.u.	CR3-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	8.25			#	-	-
	s.u.	CR5	SL, RIV	05/02/2006	N001	0.66 - 0.66	8.15			#	-	-
	s.u.	TP-02	WL	05/03/2006	N001	0.00 - 0.00	7.06		F	#	-	-
	s.u.	TP-17	WL	05/02/2006	N001	0.00 - 0.00	7.00		F	#	-	-
	s.u.	TP-18	WL	05/02/2006	N001	0.00 - 0.00	7.18		F	#	-	-
	s.u.	TP-19	WL	05/02/2006	N001	0.00 - 0.00	6.93		F	#	-	-
Specific Conductance	umhos/cm	0201	SL, RIV	05/02/2006	N001	1.00 - 1.00	478			#	-	-
	umhos/cm	0204-007	SL, RIV	05/03/2006	N001	0.66 - 0.66	512			#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	0219-007	SL, RIV	05/04/2006	N001	0.75 - 0.75	522			#	-	-
	umhos/cm	0220-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	527			#	-	-
	umhos/cm	0221-007	SL, RIV	05/04/2006	N001	0.83 - 0.83	526			#	-	-
	umhos/cm	0222-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	523			#	-	-
	umhos/cm	0223-007	SL, RIV	05/04/2006	N001	0.00 - 0.00	510			#	-	-
	umhos/cm	0224-007	SL, RIV	05/04/2006	N001	0.50 - 0.66	511			#	-	-
	umhos/cm	0225-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	510			#	-	-
	umhos/cm	0226-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	505			#	-	-
	umhos/cm	0227-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	515			#	-	-
	umhos/cm	0228-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	480			#	-	-
	umhos/cm	0401	WL	05/04/2006	N001	0.00 - 0.00	19510		F	#	-	-
	umhos/cm	0401	WL	05/04/2006	N001	18.00 - 18.00	19510		F	#	-	-
	umhos/cm	0402	WL	05/03/2006	N001	17.00 - 17.00	4119		F	#	-	-
	umhos/cm	0402	WL	05/04/2006	N001	0.00 - 0.00	4072		F	#	-	-
	umhos/cm	0403	WL	05/04/2006	N001	0.00 - 0.00	3045		F	#	-	-
	umhos/cm	0404	WL	05/04/2006	N001	0.00 - 0.00	19920		F	#	-	-
	umhos/cm	0405	WL	05/04/2006	N001	0.00 - 0.00	15850		F	#	-	-
	umhos/cm	0406	WL	05/04/2006	N001	0.00 - 0.00	11730		F	#	-	-
	umhos/cm	0407	WL	05/04/2006	N001	0.00 - 0.00	2313		F	#	-	-
	umhos/cm	0408	WL	05/04/2006	N001	0.00 - 0.00	19340		F	#	-	-
	umhos/cm	0408	WL	05/04/2006	N001	26.00 - 26.00	19340		F	#	-	-
	umhos/cm	0437	WL	05/03/2006	N001	0.00 - 0.00	10910		F	#	-	-
	umhos/cm	0438	WL	05/03/2006	N001	0.00 - 0.00	9135		F	#	-	-
	umhos/cm	0439	WL	05/03/2006	N001	0.00 - 0.00	9187		F	#	-	-
	umhos/cm	0492	WL	05/02/2006	N001	0.00 - 0.00	25380		F	#	-	-
	umhos/cm	ATP-2-D	WL, PZ	05/03/2006	N001	0.00 - 0.00	119100		F	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Specific Conductance	umhos/cm	ATP-2-S	WL, PZ	05/03/2006	N001	0.00 - 0.00	17480		F	#	-	-
	umhos/cm	CR1	SL, RIV	05/02/2006	N001	0.66 - 0.66	482			#	-	-
	umhos/cm	CR3-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	531			#	-	-
	umhos/cm	CR5	SL, RIV	05/02/2006	N001	0.66 - 0.66	480			#	-	-
	umhos/cm	TP-02	WL	05/03/2006	N001	0.00 - 0.00	4160		F	#	-	-
	umhos/cm	TP-17	WL	05/02/2006	N001	0.00 - 0.00	126900		F	#	-	-
	umhos/cm	TP-18	WL	05/02/2006	N001	0.00 - 0.00	107800		F	#	-	-
	umhos/cm	TP-19	WL	05/02/2006	N001	0.00 - 0.00	129900		F	#	-	-
Sulfate	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	85			#	0.5	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	90			#	0.5	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	92			#	0.5	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	92			#	0.5	-
	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	93			#	0.5	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	94			#	0.5	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	93			#	0.5	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	93			#	0.5	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	89			#	0.5	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	89			#	0.5	-
	mg/L	0226-007	SL, RIV	05/02/2006	0002	1.00 - 1.00	90			#	0.5	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	87			#	0.5	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	87			#	0.5	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	9400		F	#	100	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	9600		F	#	100	-
	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	1600		F	#	25	-
	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	1600		F	#	25	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	780		F	#	25	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Sulfate	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	9200		F	#	100	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	7400		F	#	100	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	5100		F	#	100	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	910		F	#	25	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	8900		F	#	100	-
	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	9300		F	#	100	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	4200		F	#	50	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	4100		F	#	50	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	3600		F	#	50	-
	mg/L	0439	WL	05/03/2006	0002	0.00 - 0.00	3600		F	#	50	-
	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	11000		F	#	250	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	5200		F	#	50	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	8100		F	#	100	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	86			#	0.5	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	89			#	0.5	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	87			#	0.5	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	1200		F	#	25	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	4800		F	#	50	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	5000		F	#	50	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	4900		F	#	100	-
Temperature	C	0201	SL, RIV	05/02/2006	N001	1.00 - 1.00	14.24			#	-	-
	C	0204-007	SL, RIV	05/03/2006	N001	0.66 - 0.66	15.40			#	-	-
	C	0219-007	SL, RIV	05/04/2006	N001	0.75 - 0.75	16.52			#	-	-
	C	0220-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	16.23			#	-	-
	C	0221-007	SL, RIV	05/04/2006	N001	0.83 - 0.83	16.34			#	-	-
	C	0222-007	SL, RIV	05/04/2006	N001	1.00 - 1.00	16.62			#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	0223-007	SL, RIV	05/04/2006	N001	0.00 - 0.00	15.65			#	-	-
	C	0224-007	SL, RIV	05/04/2006	N001	0.50 - 0.66	15.67			#	-	-
	C	0225-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	15.21			#	-	-
	C	0226-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	15.85			#	-	-
	C	0227-007	SL, RIV	05/02/2006	N001	1.00 - 1.00	15.69			#	-	-
	C	0228-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	15.25			#	-	-
	C	0401	WL	05/04/2006	N001	18.00 - 18.00	16.48		F	#	-	-
	C	0401	WL	05/04/2006	N001	0.00 - 0.00	16.48		F	#	-	-
	C	0402	WL	05/03/2006	N001	17.00 - 17.00	15.68		F	#	-	-
	C	0402	WL	05/04/2006	N001	0.00 - 0.00	13.66		F	#	-	-
	C	0403	WL	05/04/2006	N001	0.00 - 0.00	13.46		F	#	-	-
	C	0404	WL	05/04/2006	N001	0.00 - 0.00	16.84		F	#	-	-
	C	0405	WL	05/04/2006	N001	0.00 - 0.00	17.29		F	#	-	-
	C	0406	WL	05/04/2006	N001	0.00 - 0.00	18.02		F	#	-	-
	C	0407	WL	05/04/2006	N001	0.00 - 0.00	12.59		F	#	-	-
	C	0408	WL	05/04/2006	N001	0.00 - 0.00	15.49		F	#	-	-
	C	0408	WL	05/04/2006	N001	26.00 - 26.00	15.49		F	#	-	-
	C	0437	WL	05/03/2006	N001	0.00 - 0.00	20.97		F	#	-	-
	C	0438	WL	05/03/2006	N001	0.00 - 0.00	21.24		F	#	-	-
	C	0439	WL	05/03/2006	N001	0.00 - 0.00	20.45		F	#	-	-
	C	0492	WL	05/02/2006	N001	0.00 - 0.00	16.35		F	#	-	-
	C	ATP-2-D	WL, PZ	05/03/2006	N001	0.00 - 0.00	20.59		F	#	-	-
	C	ATP-2-S	WL, PZ	05/03/2006	N001	0.00 - 0.00	18.87		F	#	-	-
	C	CR1	SL, RIV	05/02/2006	N001	0.66 - 0.66	14.12			#	-	-
	C	CR3-007	SL, RIV	05/02/2006	N001	0.00 - 0.00	15.30			#	-	-
	C	CR5	SL, RIV	05/02/2006	N001	0.66 - 0.66	15.26			#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Temperature	C	TP-02	WL	05/03/2006	N001	0.00 - 0.00	15.69		F	#	-	-
	C	TP-17	WL	05/02/2006	N001	0.00 - 0.00	17.10		F	#	-	-
	C	TP-18	WL	05/02/2006	N001	0.00 - 0.00	16.56		F	#	-	-
	C	TP-19	WL	05/02/2006	N001	0.00 - 0.00	15.99		F	#	-	-
Total Dissolved Solids	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	270			#	20	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	200			#	20	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	320		J	#	20	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	310		J	#	20	-
	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	310		J	#	20	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	310			#	20	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	310			#	20	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	320			#	20	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	310			#	20	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	310			#	20	-
	mg/L	0226-007	SL, RIV	05/02/2006	0002	1.00 - 1.00	310			#	20	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	300			#	20	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	330			#	20	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	18000		F	#	200	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	18000		F	#	400	-
	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	3200		F	#	80	-
	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	3200		F	#	80	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	1700		F	#	80	-
	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	17000		FJ	#	400	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	13000		FJ	#	400	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	8700		FJ	#	400	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	1800		F	#	40	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Total Dissolved Solids	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	16000		F	#	200	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	16000		F	#	400	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	8500		F	#	400	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	8100		F	#	400	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	7700		F	#	400	-
	mg/L	0439	WL	05/03/2006	0002	0.00 - 0.00	7600		F	#	400	-
	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	24000		F	#	400	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	94000		F	#	2000	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	14000		F	#	400	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	300			#	20	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	310			#	20	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	300			#	20	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	3100		F	#	80	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	110000		F	#	2000	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	85000		F	#	2000	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	110000		F	#	2000	-
Turbidity	NTU	0401	WL	05/04/2006	N001	0.00 - 0.00	4.08		F	#	-	-
	NTU	0401	WL	05/04/2006	N001	18.00 - 18.00	4.08		F	#	-	-
	NTU	0402	WL	05/03/2006	N001	17.00 - 17.00	0.76		F	#	-	-
	NTU	0402	WL	05/04/2006	N001	0.00 - 0.00	0.65		F	#	-	-
	NTU	0403	WL	05/04/2006	N001	0.00 - 0.00	1.51		F	#	-	-
	NTU	0404	WL	05/04/2006	N001	0.00 - 0.00	2.00		F	#	-	-
	NTU	0405	WL	05/04/2006	N001	0.00 - 0.00	1.24		F	#	-	-
	NTU	0406	WL	05/04/2006	N001	0.00 - 0.00	3.52		F	#	-	-
	NTU	0407	WL	05/04/2006	N001	0.00 - 0.00	0.83		F	#	-	-
	NTU	0408	WL	05/04/2006	N001	0.00 - 0.00	3.07		F	#	-	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Turbidity	NTU	0408	WL	05/04/2006	N001	26.00 - 26.00	3.07		F	#	-	-
	NTU	0437	WL	05/03/2006	N001	0.00 - 0.00	7.99		F	#	-	-
	NTU	0438	WL	05/03/2006	N001	0.00 - 0.00	1.25		F	#	-	-
	NTU	0439	WL	05/03/2006	N001	0.00 - 0.00	0.71		F	#	-	-
	NTU	0492	WL	05/02/2006	N001	0.00 - 0.00	9.97		F	#	-	-
	NTU	ATP-2-D	WL, PZ	05/03/2006	N001	0.00 - 0.00	20.4		F	#	-	-
	NTU	ATP-2-S	WL, PZ	05/03/2006	N001	0.00 - 0.00	2.70		F	#	-	-
	NTU	TP-02	WL	05/03/2006	N001	0.00 - 0.00	3.56		F	#	-	-
	NTU	TP-17	WL	05/02/2006	N001	0.00 - 0.00	3.59		F	#	-	-
	NTU	TP-18	WL	05/02/2006	N001	0.00 - 0.00	7.25		F	#	-	-
	NTU	TP-19	WL	05/02/2006	N001	0.00 - 0.00	8.7		F	#	-	-
Uranium	mg/L	0201	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.0018			#	3.4E-06	-
	mg/L	0204-007	SL, RIV	05/03/2006	0001	0.66 - 0.66	0.002			#	3.4E-06	-
	mg/L	0219-007	SL, RIV	05/04/2006	0001	0.75 - 0.75	0.0019			#	3.4E-06	-
	mg/L	0220-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	0.002			#	3.4E-06	-
	mg/L	0221-007	SL, RIV	05/04/2006	0001	0.83 - 0.83	0.0021			#	3.4E-06	-
	mg/L	0222-007	SL, RIV	05/04/2006	0001	1.00 - 1.00	0.002			#	3.4E-06	-
	mg/L	0223-007	SL, RIV	05/04/2006	0001	0.00 - 0.00	0.0019			#	3.4E-06	-
	mg/L	0224-007	SL, RIV	05/04/2006	0001	0.50 - 0.66	0.0019			#	3.4E-06	-
	mg/L	0225-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.0019			#	3.4E-06	-
	mg/L	0226-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.0018			#	3.4E-06	-
	mg/L	0226-007	SL, RIV	05/02/2006	0002	1.00 - 1.00	0.0018			#	3.4E-06	-
	mg/L	0227-007	SL, RIV	05/02/2006	0001	1.00 - 1.00	0.0018			#	3.4E-06	-
	mg/L	0228-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	0.0017			#	3.4E-06	-
	mg/L	0401	WL	05/04/2006	0001	0.00 - 0.00	4.400		F	#	0.00034	-
	mg/L	0401	WL	05/04/2006	0001	18.00 - 18.00	4.400		F	#	0.00034	-

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY
Uranium	mg/L	0402	WL	05/03/2006	0001	17.00 - 17.00	0.450		F	#	0.00017	-
	mg/L	0402	WL	05/04/2006	0001	0.00 - 0.00	0.450		F	#	3.4E-05	-
	mg/L	0403	WL	05/04/2006	0001	0.00 - 0.00	0.340		F	#	3.4E-05	-
	mg/L	0404	WL	05/04/2006	0001	0.00 - 0.00	3.100		F	#	0.00017	-
	mg/L	0405	WL	05/04/2006	0001	0.00 - 0.00	2.100		F	#	0.00017	-
	mg/L	0406	WL	05/04/2006	0001	0.00 - 0.00	1.300		F	#	0.00017	-
	mg/L	0407	WL	05/04/2006	0001	0.00 - 0.00	0.210		F	#	1.7E-05	-
	mg/L	0408	WL	05/04/2006	0001	26.00 - 26.00	3.700		F	#	0.00034	-
	mg/L	0408	WL	05/04/2006	0001	0.00 - 0.00	4.000		F	#	0.00034	-
	mg/L	0437	WL	05/03/2006	0001	0.00 - 0.00	4.000		F	#	0.00034	-
	mg/L	0438	WL	05/03/2006	0001	0.00 - 0.00	2.100		F	#	0.00034	-
	mg/L	0439	WL	05/03/2006	0001	0.00 - 0.00	1.000		F	#	3.4E-05	-
	mg/L	0439	WL	05/03/2006	0002	0.00 - 0.00	0.960		F	#	0.00017	-
	mg/L	0492	WL	05/02/2006	0001	0.00 - 0.00	3.600		F	#	0.00017	-
	mg/L	ATP-2-D	WL, PZ	05/03/2006	0001	0.00 - 0.00	0.023		F	#	3.4E-06	-
	mg/L	ATP-2-S	WL, PZ	05/03/2006	0001	0.00 - 0.00	0.310		F	#	3.4E-05	-
	mg/L	CR1	SL, RIV	05/02/2006	0001	0.66 - 0.66	0.0018			#	3.4E-06	-
	mg/L	CR3-007	SL, RIV	05/02/2006	0001	0.00 - 0.00	0.0019			#	3.4E-06	-
	mg/L	CR5	SL, RIV	05/02/2006	0001	0.66 - 0.66	0.002			#	3.4E-06	-
	mg/L	TP-02	WL	05/03/2006	0001	0.00 - 0.00	9.700		F	#	0.00034	-
	mg/L	TP-17	WL	05/02/2006	0001	0.00 - 0.00	0.025		F	#	3.4E-06	-
	mg/L	TP-18	WL	05/02/2006	0001	0.00 - 0.00	0.026		F	#	3.4E-06	-
	mg/L	TP-19	WL	05/02/2006	0001	0.00 - 0.00	0.00004	B	UF	#	3.4E-06	-

GENERAL WATER QUALITY DATA BY PARAMETER (USEE205) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:36 am

PARAMETER	UNITS	LOCATION ID	LOC TYPE, SUBTYPE	SAMPLE: DATE	ID	DEPTH RANGE (FT BLS)	RESULT	QUALIFIERS: LAB	DATA	QA	DETECTION LIMIT	UN-CERTAINTY

RECORDS: SELECTED FROM USEE200 WHERE site_code='MOA01' AND location_code in('0201','0204-007','0219-007','0220-007','0221-007','0222-007','0223-007','0224-007','0225-007','0226-007','0227-007','0228-007','CR1','CR3-007','CR5','TP-02','TP-17','TP-18','TP-19','ATP-2-S','ATP-2-D','0401','0402','0403','0404','0405','0406','0407','0408','0437','0438','0439','0492') AND quality_assurance = TRUE AND (data_validation_qualifiers IS NULL OR data_validation_qualifiers NOT LIKE '%R%' AND data_validation_qualifiers NOT LIKE '%X%') AND DATE_SAMPLED between #5/1/2006# and #5/5/2006#

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LOCATION TYPES: SL SURFACE LOCATION WL WELL

LOCATION SUBTYPES: PZ Piezometer RIV River

LAB QUALIFIERS:

*	Replicate analysis not within control limits.
+	Correlation coefficient for MSA < 0.995.
>	Result above upper detection limit.
A	TIC is a suspected aldol-condensation product.
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
C	Pesticide result confirmed by GC-MS.
D	Analyte determined in diluted sample.
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H	Holding time expired, value suspect.
I	Increased detection limit due to required dilution.
J	Estimated
M	GFAA duplicate injection precision not met.
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
P	> 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
S	Result determined by method of standard addition (MSA).
U	Analytical result below detection limit.
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
X	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Y	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Z	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

DATA QUALIFIERS:

F	Low flow sampling method used.	G	Possible grout contamination, pH > 9.	J	Estimated value.
L	Less than 3 bore volumes purged prior to sampling.	Q	Qualitative result due to sampling technique	R	Unusable result.
U	Parameter analyzed for but was not detected.	X	Location is undefined.		

QA QUALIFIER: # = validated according to Quality Assurance guidelines.

Water Level Data

STATIC WATER LEVELS (USEE700) FOR SITE MOA01, Moab Site
REPORT DATE: 8/8/2006 9:37 am

LOCATION CODE	FLOW CODE	TOP OF CASING ELEVATION (FT)	MEASUREMENT		DEPTH FROM TOP OF CASING (FT)	WATER ELEVATION (FT)	WATER LEVEL FLAG
			DATE	TIME			
0401	O	3969.60	05/04/2006	11:23	14.77	3954.83	
0402	O	3968.63	05/03/2006	11:40	13.82	3954.81	
		3968.63	05/04/2006	09:31	13.77	3954.86	
0403	O	3968.95	05/04/2006	08:27	14.35	3954.60	
0404	O	3968.30	05/04/2006	15:38	13.98	3954.32	
0405	O	3968.47	05/04/2006	16:20	12.52	3955.95	
0406	O	3969.91	05/04/2006	17:18	13.87	3956.04	
0407	O	3969.09	05/04/2006	07:34	14.45	3954.64	
0408	O	3969.17	05/04/2006	10:34	14.30	3954.87	
0437	O	4048.25	05/03/2006	14:06	89.25	3959.00	
0438	O	4054.22	05/03/2006	13:09	96.30	3957.92	
0439	O	4055.27	05/03/2006	12:06	97.42	3957.85	
0492		3967.64	05/02/2006	15:34	12.87	3954.77	
ATP-2-D	O	3967.05	05/03/2006	10:40	13.57	3953.48	
ATP-2-S	O	3967.04	05/03/2006	09:45	11.06	3955.98	
TP-02	O	3975.55	05/03/2006	08:28	19.12	3956.43	
TP-17	D	3963.69	05/02/2006	13:57	9.25	3954.44	
TP-18	D	3963.63	05/02/2006	11:30	9.26	3954.37	
TP-19	D	3962.17	05/02/2006	10:10	7.88	3954.29	

RECORDS: SELECTED FROM USEE700 WHERE site_code='MOA01' AND location_code in('0201','0204-007','0219-007','0220-007','0221-007','0222-007','0223-007','0224-007','0225-007','0226-007','0227-007','0228-007','CR1','CR3-007','CR5','TP-02','TP-17','TP-18','TP-19','ATP-2-S','ATP-2-D','0401','0402','0403','0404','0405','0406','0407','0408','0437','0438','0439','0492') AND LOG_DATE between #5/1/2006# and #5/5/2006#

FLOW CODES: D DOWN GRADIENT O ON-SITE

WATER LEVEL FLAGS:

Blanks Report

BLANKS REPORT
LAB CODE: PAR, PARAGON (Fort Collins, CO)
LAB REQUISITION(S): 06040361
REPORT DATE: 08/08/06 09:23:02: AM

PARAMETER	SITE CODE	LOCATION ID	SAMPLE DATE	ID	UNITS	RESULT	QUALIFIERS LAB	QUALIFIERS DATA	DETECTION LIMIT	UNCERTAINTY	SAMPLE TYPE
Ammonia Total as N	MOA01	0999	05/08/2006	0001	mg/L	0.1	U		0.1		E
Bromide	MOA01	0999	05/08/2006	0001	mg/L	0.2	U		0.2		E
Chloride	MOA01	0999	05/08/2006	0001	mg/L	0.2	U		0.2		E
Sulfate	MOA01	0999	05/08/2006	0001	mg/L	0.5	U		0.5		E
Total Dissolved Solids	MOA01	0999	05/08/2006	0001	mg/L	20	U	J	20		E
Uranium	MOA01	0999	05/08/2006	0001	mg/L	0.000065	B	U	0.0000034		E

BLANKS REPORT
LAB CODE: PAR, PARAGON (Fort Collins, CO)
LAB REQUISITION(S): 06040361
REPORT DATE: 08/08/06 09:23:02: AM

PARAMETER	SITE CODE	LOCATION ID	SAMPLE DATE	ID	UNITS	RESULT	QUALIFIERS LAB	QUALIFIERS DATA	DETECTION LIMIT	UNCERTAINTY	SAMPLE TYPE

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

*	Replicate analysis not within control limits.
+	Correlation coefficient for MSA < 0.995.
A	TIC is a suspected aldol-condensation product.
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
Z	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
H	Holding time expired, value suspect.
I	Increased detection limit due to required dilution.
C	Pesticide result confirmed by GC-MS.
M	GFAA duplicate injection precision not met.
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
S	Result determined by method of standard addition (MSA).
U	Analytical result below detection limit.
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
D	Analyte determined in diluted sample.
P	> 25% difference in detected pesticide or Arochlor concentrations between 2 columns.
X	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
Y	Laboratory defined (USEPA CLP organic) qualifier, see case narrative.
>	Result above upper detection limit.
J	Estimated

DATA QUALIFIERS:

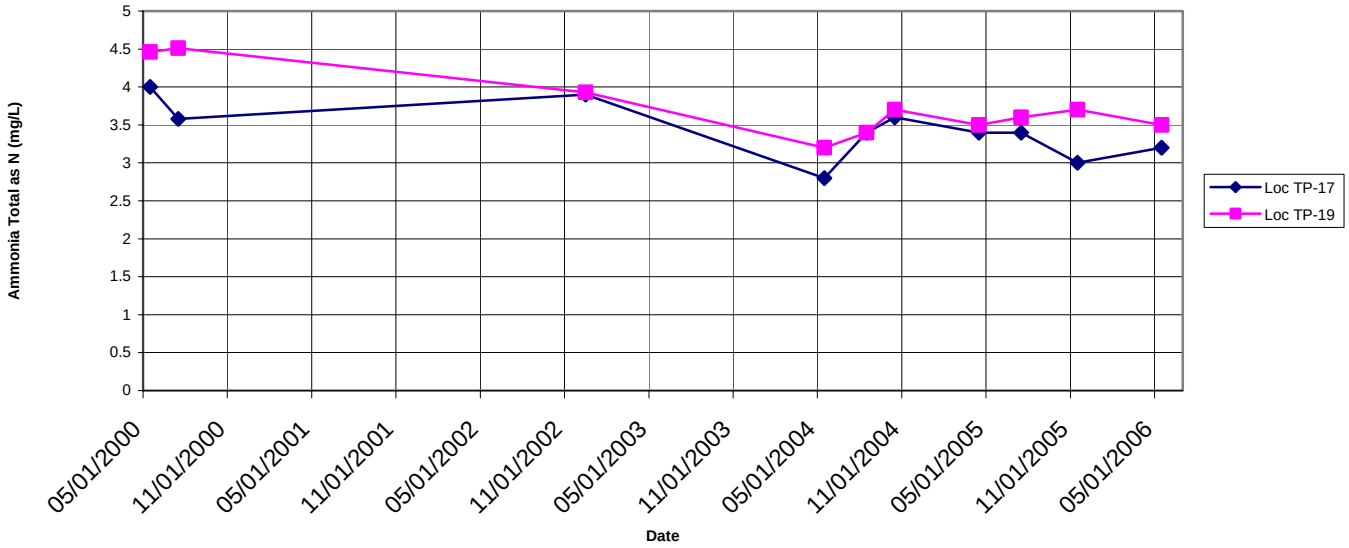
J	Estimated value.	F	Low flow sampling method used.	G	Possible grout contamination, pH > 9.
L	Less than 3 bore volumes purged prior to sampling.	R	Unusable result.	X	Location is undefined.
U	Parameter analyzed for but was not detected.	Q	Qualitative result due to sampling technique		

SAMPLE TYPES:

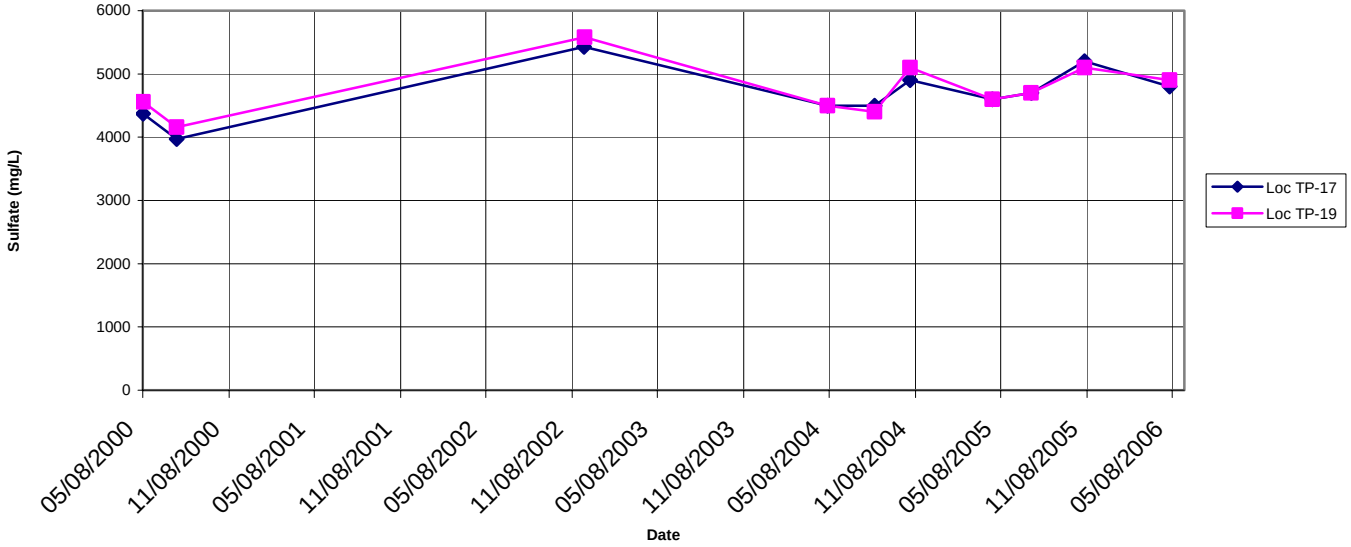
E	EQUIPMENT BLANK

Time Versus Concentration Graphs

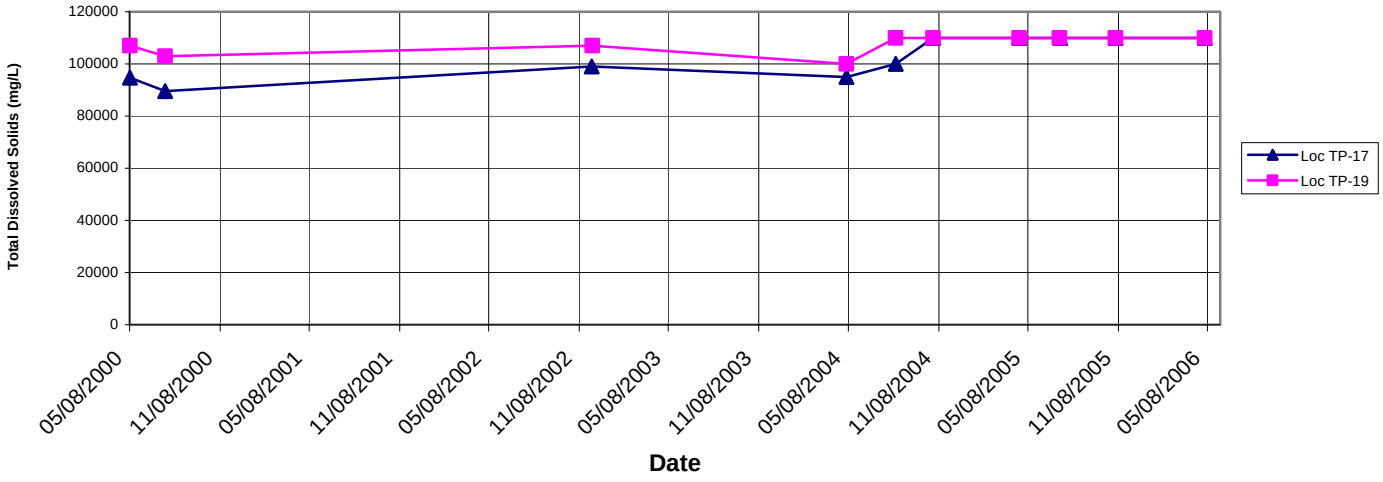
Moab Site
Routine Sampling
Ammonia Total as N Concentration



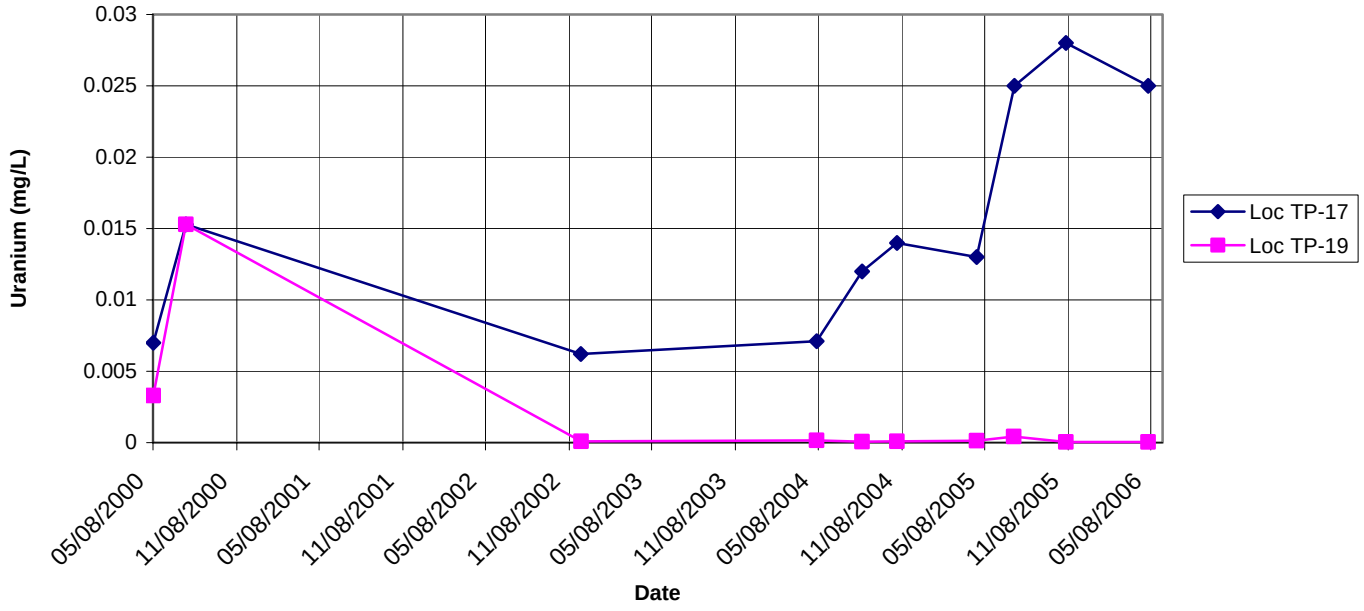
Moab Site
Routine Sampling
Sulfate Concentration



Moab Site
Routine Sampling
Total Dissolved Solids Concentration



Moab Site
Routine Sampling
Uranium Concentration



Attachment 2

Trip Report

Stoller

established 1959

Memorandum

DATE: June 20, 2006

TO: John R. Ford

FROM: David G. Traub

SUBJECT: Sampling Event Trip Report

Site: Moab, Utah

Dates of Sampling Event: May 1–4, 2006

Team Members: Dave Traub, Robert Hill (Stoller, Rocky Flats)

Number of Locations Sampled: A total of 18 ground water and 15 surface water locations were sampled.

Locations Not Sampled/Reason: Six surface water samples located off the bank and approximately 10 feet into the river were not sampled due to the high river level. These six were collocated with shoreline surface water sampling locations.

Location Specific Information: All monitor wells and piezometers were sampled using either dedicated bladder pumps or peristaltic pumps with dedicated tubing. Several of the narrow 1-inch piezometers had dataloggers that were removed so that tubing could be used for sampling. After sampling, the tubing was discarded, and the dataloggers were placed back in the piezometers. Surface water locations were all sampled using portable peristaltic pumps.

The following table indicates specific comments noted at each location:

Ticket Number	Location	Sample Date	Time	Sample Depth (inches)	Comment
NFA 877	0201	5/2/06	0840	12	4 ft. from bank; slow current flow
NFA 891	0204-007	5/3/06	0915	8	12 inches from bank; slow flow
	0217-007				Not sampled due to high water
	0218-007				Not sampled due to high water
NFA 936	0219-007	5/4/06	1755	9	2 ft from bank. No flow, but could not get to river
NFA 934	0220-007	5/4/06	1700	12	4 ft from bank
NFA 932	0221-007	5/4/06	1605	10	3 ft from bank
NFA 930	0222-007	5/4/06	1220	12	3 ft from bank
NFA 927	0223-007	5/4/06	1015		
NFA 900	0224-007	5/4/06	0915	6–8	4 ft. from bank; muddy
NFA 889	0225-007	5/2/06	1640	12	1 ft. from bank; strong flow
NFA 883	0226-007	5/2/06	1340	12	2 ft. from bank; moderate flow
NFA 881	0227-007	5/2/06	1115	12	1.5 ft from bank; strong flow

Ticket Number	Location	Sample Date	Time	Sample Depth (inches)	Comment
NFA 879	0228-007	5/2/06	0955		
	0232-007				Not sampled due to high water
	0233-007				Not sampled due to high water
	0234-007				Not sampled due to high water
	0235-007				Not sampled due to high water
NFA 876	CR1	5/2/06	0745	8	1.5 ft from bank; strong flow
NFA 887	CR3-007	5/2/06	1520		
NFA 878	CR5	5/2/06	0915	8	1.5 ft from bank; slow current; lot of weeds
NFA 890	TP-02	5/3/06	0850		
NFA 884	TP-17	5/2/06	1420		
NFA 882	TP-18	5/2/06	1150		Pulled tubing out 3 ft
NFA 880	TP-19	5/2/06	1045		Dedicated tube pulled up 2.5 ft
NFA 892	ATP-2-S	5/3/06	1025		
NFA 893	ATP-2-D	5/3/06	1125		Sample fluid turned light brown approximately 2–3 minutes after filling bottles
NFA 929	0401	5/4/06	1150		
NFA 926	0402	5/4/06	0955		
NFA 899	0403	5/4/06	0850		
NFA 931	0404	5/4/06	1550		
NFA 933	0405	5/4/06	1640		
NFA 935	0406	5/4/06	1740		
NFA 896	0407	5/4/06	0805		
NFA 928	0408	5/4/06	1100		
NFA 895	0437	5/3/06	1430		
NFA 898	0438	5/3/06	1340		Pulled data logger
NFA 894	0439	5/3/06	1235		
NFA 888	0492	5/2/06	1610		

Field Variance: Only a 125-ml sample was collected for uranium analysis, as opposed to the standard 500-ml sample volume for metals. No other metals are being sampled, and this volume is sufficient for the uranium analysis.

Quality Control Sample Cross Reference: Following are the false identifications assigned to the quality control samples:

Ticket Number	False ID	True ID	Sample Type	Associated Matrix
NFA 886	2323	0226-007	Sample duplicate	Surface water
NFA 897	2324	Well 0439	Sample duplicate	Ground water
NFA 937	2325	NA	Equipment blank	DI water

Requisition Number Assigned: All samples were assigned to RIN 06040361.

Sample Shipments: Samples were shipped to Paragon Analytics, Inc., from Moab, Utah, on May 4, and from the Grand Junction facility on May 10.

Water Level Measurements: Water levels were collected at all sampled wells.

Well Inspection Summary: Well inspections were conducted at all sampled wells. Several of the piezometers do not have protective casings or sealing caps. All wells were in good condition, but salt spray from the evaporation system is corroding the protective casings at wells 0437, 0438, and 0439 on

top of the pile. These wells are not locked due to the corrosion. Sampling must be coordinated with the spray schedule to avoid being sprayed.

Equipment: All sampling equipment functioned properly.

Institutional Controls

- Fences, Gates, Locks: N/A
- Signs: N/A
- Trespassing/Site Disturbances: N/A

Site Issues

There was an extreme amount of dust blowing in the well field area. It may be worth placing gravel around the wells to reduce the dust. The frequent dust control water spraying does not cover the areas adjacent to the wells.

- Disposal Cell/Drainage Structure Integrity: N/A
- Vegetation/Noxious Weed Concerns: N/A
- Maintenance Requirements: N/A

Corrective Action Taken: None.

(DGT/lcg)

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